

use. M. G. FAURÉ, sen. has proved this to be an error, by a number of experiments; and has shown that water heated to 70 R. (150 Fahr.) and upwards prevents the development of the volatile principle of mustard.\* It hence results that in the preparation of sinapisms, to render them as active as possible, the powder of mustard seeds should be made into a paste with cold water, and for pediluvæ that it should be mixed with cold water and then be raised to a proper temperature by the addition of warm water.

M. Fauré infers from his experiments, that the albumen contained in the powdered mustard is one of the principal constituents of the volatile oil, that cold water develops it or at least is indispensable to its formation; and that whenever this albumen is rendered insoluble by coagulation or denaturalization by any cause this oil will not be formed. The substances which produce this last effect are caloric above 75 R., alcohol, concentrated acids, caustic alkalies, mineral salts, chlorine, &c.—*Journ. de Pharm. Sept. 1835.*

23. *Tincture of Copaiba*.—A correspondent of the *London Med. Gaz.* describes the following as "the least nauseous and most available form for administering the balsam of copaiba:—take twelve ounces of copaiba and six of calcined magnesia, rub together, and then digest in a pint of proof spirit; filter, and add half an ounce of the spirit of nitrous ether. Of this a drachm two or three times a-day, gradually increased to half an ounce at a time, will prove a sufficient dose. The tincture when first made is transparent and colourless, but assumes an orange tint on keeping."

24. *Observations on the Seeds of the Jatropha Curcas*.—Dr. SIGMOND, in making to the Medico-Botanical Society some observations on these seeds, said, that although the seeds of the *Jatropha curcas* have been sent to us before, this is the first opportunity we have had of seeing them in their capsules; and on comparing them with those which through the kindness of Mr. Battley, are laid before us, exactly as they are found in commerce, you will observe that they correspond in external appearance, and that they are essentially different from the seeds of the *Crotan tiglium*, which are also before you. The character of the fruit is fully evident—it is about the shape and size of a young walnut, it is of a yellowish colour; these are concealed under a bark, which is smooth, leathery, and strong; there are three seeds invested in two coats; they are oval oblong. The external coat is brittle, crustaceous, and blackish. These seeds, when ripe and fresh, are to be slightly roasted, and infused in spiced wine, when they act, if taken in number not more than two or three, as gentle evacuates of the bowels, producing neither nausea nor any griping; in larger quantities they are emetic and purgative, and if in still larger quantities, are active poisons. The expressed oil which is obtained from them acts in a similar way, and three or four drops, added to castor oil, increases its purgative qualities, or the same quantity may be taken in mucilage of gum arabic, with good effect. The expressed oil has likewise been used with very excellent results externally, in the cure of the itch, in various herpetic eruptions, and it has likewise been recommended in chronic rheumatism. The effect, when taken internally, is very quickly produced; large copious alvine evacuations very speedily following upon it, sometimes within half an hour, besides which, the secretion of urine is considerably augmented. In apoplexy, in obstinate constipation in dropsy, it appears to be of great importance. The following experiments, detailed by Orfila, prove that the seeds possess highly poisonous properties, that they act more strongly when introduced into the stomach, than when applied to the cellular tissue, and that the effects depend upon the violent inflammation they produce, and on the sympathetic action on the nervous system:—

*Experiment 1*.—At eight in the morning, three drachms of this seed, deprived of its ligneous covering, and reduced to a paste, were introduced into the stomach of a robust dog, of middle size, and the œsophagus was tied. At a quarter before nine, the animal began to make efforts to vomit. At nine he uttered some plaintive cries. At ten he could no longer walk; he remained lying on the side, in a state of great insensibility. He died an hour after. He was opened at two o'clock. The whole of the digestive canal was red on its external surface; the

\* The same fact has been simultaneously discovered in Germany, by MM. Geiger and Hesse.

mucous membrane of the stomach was of a deep cherry-red throughout its whole extent; the interior of the rectum was of a fiery-red; the lungs were crepitant, and of a reddish colour; the ventricles of the heart contained black fluid blood.

*Experiment 2.*—At eight in the morning this experiment was repeated with a drachm of the same paste. The animal only felt during the day inclinations to vomit. At ten in the evening, he was insensible, could no longer stand, and made deep inspirations. He died in the night. The digestive canal was very much inflamed in the interior and exterior; the coats of the great intestines presented throughout their whole thickness, a colour which appeared black; in separating them from one another, it was perceived that this colour was an extremely deep red; there was no eschar. The lungs presented several livid patches, dense, and distended with blood.

*Experiment 3.*—Another animal, that had taken a drachm and a half of the same paste, died at the end of ten hours, and the same symptoms and appearances on dissection were observed.

*Experiment 4.*—At eight in the morning a drachm of the same paste, mixed with two drachms of water, was applied to the cellular texture of the thigh of a dog. The animal experienced no remarkable phenomenon during the day. The next at noon, he was lying on the side; his breathing was difficult and profound. He was placed on his feet, and fell down like a lifeless mass; his limbs, far from being stiff, were extremely relaxed; the organs of sense no longer performed their functions. He died two hours after. The digestive canal was sound; the lungs presented livid, dense patches, distended with blood; the limb operated on was very much inflamed; the redness extended to the fifth sternal rib. There was no eschar.

The seeds of the *Jatropha curcas* are a subject of much interest to us; they have been thought by Caventou to yield the oil which is generally called croton oil; and he has made some experiments which he thinks proves that the oil obtained from the pignons of India, as they have been called, differs in no respect from the croton oil procured directly from London. This, however, is erroneous; although the medicinal action is nearly the same, yet there is a great difference in the colour, odour, flavour, and general appearance of the oils that are obtained from the seeds of these two plants. The *Jatropha curcas* or angular leaved physic nut is exclusively a native of South America; but the negroes everywhere employ it largely for medicinal purposes. It belongs to the natural order Euphorbiaceæ, which as you are aware embraces a number of families, various species of which contain seeds that are drastic purgatives, and which have acrid properties. Amongst these the seeds of the *Croton tiglium*, the *Jatropha curcas*, and the *Ricinus communis*, bear a striking resemblance in therapeutic energy to one another. The order derives its name from a plant which has some curious historical recollections interesting to the botanist. Pliny tells us that there were two celebrated physicians, brothers: Antonius Musa, and Euphorbus. The first restored to health Augustus Cæsar, when labouring under diseased liver, by cold applications externally, and the use of the jactuca internally. For this cure, Augustus erected a statue to Antonius Musa. The other brother, Euphorbus, was, at the same time, physician to King Juba, who determining to reward him for a similar service, consecrated to him the Euphorbium, which still bears his name.

The *Jatropha curcas* has been reared at the Royal Gardens at Kew, and in the Hortus Kewensis you will find eight species of the *Jatropha* enumerated. The best engraving is in the work of Jacquin—in which the seeds and their capsule are very well delineated, leaving no doubt in the mind of their difference from those of the *Croton tiglium*, and the identity of those which are now before you. Of the analysis of the *Jatropha curcas*, made by Messrs. Pelletier and Caventou, I know not how to speak, as it certainly appears to me they allude to the oil of croton; and as the mode of its preparation in India is not known, whether obtained by expression or boiling, it has been imagined that the seeds of both plants are employed; and this may account for the variation of strength so constantly complained of by those who have made experiments with croton oil, in some cases a single drop having produced hypercatharsis, whilst ten drops of other samples have been given without effect.—*London Med. & Surg. Journal*, March 5, 1836.

25. *Aceto-Spirituos Tincture of Cantharides*.—D. S. YOUNG, Esq. gives in the 7th vol. of the *Transactions of the Medical and Physical Society of Calcutta*, the following formula for the preparation of an aceto-spirituos tincture of cantharides. Take of concentrated acetic acid, nine ounces; rectified spirits, three ounces; Spanish flies, four ounces. The Spanish flies to be coarsely powdered and put into a wide-mouth glass-stopper bottle, when the acetic acid and rectified spirits are to be added. Let the whole digest for five days exposed to the sun, be then strained through flannel, and kept for use. The quantity will be about eight ounces.

Mr. Young extols this preparation as a substitute for the emplastrum lyttæ. He states that when it is rubbed upon any part of the body for about three minutes or until a pricking sensation is felt, that in two or three hours afterwards complete vesication will be produced. Mr. Young claims for it the advantage of the E. lyttæ of not occasioning strangury, but being more prompt in its operation and being more conveniently applied in certain situations.

The late distinguished Wm. Twining, Esq. and D. Stewart, Esq. confirm Mr. Young's statement. The former says that he employed the preparation in sixteen cases, and that it has invariably acted as a rubefacient, if quickly brushed over the skin; and when the skin was freely wetted with it, and rubbed for the space of three minutes, a perfect vesication is formed in two or three hours. "The blister," he adds, "has been in all cases more complete, and contained more serum than that produced by the emp. lyttæ. The remedy can be more exactly confined to the part which we desire to affect, and the margin of the vesication is well defined; the whole of the cuticle is more generally removed than by the common blistering plaster; and a more prompt and more free suppuration usually takes place." The pain from the application of this preparation, he states to be more severe, but more transient than that produced by the blistering ointment.

## THERAPEUTICS.

26. *On the simple Antiphlogistic Method of treating Syphilis*. By M. DEVERGNE, senior, Chief Surgeon of Gros-Cailhou.—I have shown in my *Clinical Report of the Syphilitic Disease*, that various French and foreign physicians, between 1548 and 1833, treated venereal complaints without mercury, by strict regimen and other simple and rational measures. I propose to mention here the results which I have obtained from the year 1819 to the 1st of Sept. 1835.

I should mention that I had occasion, in my service in the army, to treat numerous cases between 1804 and 1815. Though educated in the belief of a specific virus, so generally received at the period of my studies, finding every where in Germany, where I was constantly stationed from 1806 to 1813, the same doctrine confidently avowed and put in practice, a little time and reflection satisfied me, that all the frightful evils which I had incessantly before my eyes were the effect rather of unseasonable treatment than of the disease itself.

During ten years that I was living with the same men, the division of Cuirassiers of General Nansouty, with whose habits, mode of life, temperance or excess, I was well acquainted, I ascertained that the primary symptoms, especially chancres, were often cured, without relapse, by attention to cleanliness, aided by sobriety and by the powers of nature, in certain soldiers who concealed their complaints, while, on the other hand, their comrades, more obedient to medical prescriptions, did not always escape consecutive symptoms by methodical treatment. These facts were not lost on me. Since 1808, but especially since 1818, I obtained rapid and certain cures in the treatment of secondary symptoms, either by sudorifics, conjoined with strict regimen, or by the latter means alone, in patients who had sufficient resolution and inclination to confine themselves to a scanty vegetable diet.

When at the close of 1814, I became attached as senior surgeon to the Val de Grace, I was very desirous to make trials for arriving at the same result in the cure of recent venereal symptoms, by rejecting the employment of mercurial remedies. The principles explained in the works then published on the subject, and so accordant with the facts observed by myself, were assurances that I should